Rush Valley Enterprises, Inc.

Tub Hill Mine
ACT/045/013
Section 32

Township 7 South, Range 4 West
Section 5

Township 8 South, Range 4 West
Tooele County, Utah

LOCATION:

Rush Valley Enterprises is proposing an open-pit gold mine and processing facility in the Rush Valley area. The surface facilities will be located in Section 5, Township 8 South, Range 4 West. The open pit will be located in Section 32, Township 7 South, Range 4 West. See accompanying map.

SOILS AND GEOLOGY:

Soils in the area are sandy and will be stockpiled prior to disturbance. Upon completion of mining, the topsoil will be spread over the area of disturbance, and will be revegetated. Soils have a pH of 8.2 and will be fertilized to aid in revegetation success.

Geology of the area consists of Quaternary Alluvium overlaying the Ely and Arcturus Formations.

HYDROLOGY:

Surface water in the area consists of an ephemeral stream, Sabia Creek, which flows in response to summer thunderstorms and spring snowmelt.

Groundwater use consists primarily of stock water wells. Minimal ground-water development exists at the present time.

ECOLOGY:

The area is sparsely vegetated, 19.6% average cover, with sagebrush, rabbitbrush, perennial and annual grasses and some forbs.

The area is presently used for cattle grazing, with a past history of mining activities in the general area.

STRUCTURES AND FACILITIES:

The surface disturbance shall be confined to ___ acres at any one time and shall consist of: an open pit approximately ___ acres in size, office building, bathhouse, warehouse, shop, power substation, fuel storage, powder magazine and waste rock disposal facility, ore stockpile and topsoils stockpile areas.

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MINING AND RECLAMATION PLAN:

During Operations:

- 1. Surface mining will be conducted in a safe, orderly and minerlike fashion.
- 2. Soil from areas of new surface disturbance will be removed and properly stockpiled.
- 3. All disturbed materials not immediately involved in the mining and milling process will be stored in waste piles or in inactive open cuts.
- 4. Areas of new surface disturbance will be kept to a minimum.
- 5. All toxic or alkali-producing soils and materials will be isolated in conformance with all Federal and State regulations.

After Operations:

- 1. Extraneous debris, scrap metal, wood and unuseable equipment and buildings will be buried or removed from the location.
- 2. All areas disturbed by this operation will be graded to stable slopes of 45° or less and stabilized by seeding with a specified seed mixture.
- 3. All roads, exception main access roads, will be regraded and seeded.
- 4. Stockpiled topsoil will be spread over all disturbed areas.
- 5. Scarification and other soil treatment techniques will be employed on compacted surfaces before seeding.
- 6. Pre-disturbed areas not affected by the proposed mining operation may be regraded depending upon the proximity of the area to disturbed sites and general feasibility of each area.
- 7. Reseeded areas will be protected from livestock until vegetation is established.

IMPACTS:

The reclamation plan will mitigate environmental and safety hazards.

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SURETY:

Reclamation surety for this operation was estimated to be \$18,890.00 which includes a 13% inflation for five years of the mine life, to be readjusted as required at a review every five years.

The surety estimate includes the following work:

- 1. Removal of structures and equipment.
- 2. Removal of trash and debris.
- 3. Leveling of ancillary facilities and access roads.
- 4. Recontouring excavations.
- 5. Spreading of soils or surficial materials.
- 6. Soil stabilization, scarification, seeding of disturbed areas.
- 7. Thirteen percent inflation.

A copy of the reclamation surety is enclosed.

MINED LAND RECLAMATION PLAN REVIEW

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RUSH VALLEY ENTERPRISES, INC. TUB HILL MINE, TOOELE COUNTY ACT/045/015

- $\underline{\text{M-3/MR 1/112.}}$ The Division of State Lands should be informed of the project and a mined land reclamation plan submitted for their approval.
- $\underline{\text{M-3/MR 1/12.}}$ The grazing leaseholder Mr. Jackson Fitzgerald should be informed of operations in writing (Rt. 2, Spanish Fork, Utah 84660, 798-3670).
- $\underline{\text{M-3(1)(d)}}$. How many and what types of buildings will be constructed in the refinery and maintenance area? Are any utility corridors planned? How will power be supplied. Where will the powder magazine be located?
- $\underline{\text{M-3(1)(e)}}$. Is the residue pile considered to be a process ore-waste dump? How will drainage from the roadway be directed around the topsoil storage areas? Please determine the acreage of the residue pile for an estimate of the reclamation surety.
- $\underline{\text{M-3(1)(f)}}$. Drill hole data has not been presented. Information should be submitted including depths of soil, overburden, ore body and any water bearing strata. This should have a physical description of the materials included. (The information will be considered confidential.)
- $\underline{\text{M-3}(1)(g)}$. Materials from the refining process should not be used for roadbed grading unless tests are run on them ascertaining that they are nontoxic wastes suitable for this use.
- $\underline{\text{M-3(3)/MR (1-7), MR (2-7).}}$ What types of ore processing or refining are involved in the operation? What types of chemicals or separation equipment will be used?
- M-3(2)(c)/MR 2-11(d). An accurate estimate of topsoil availability should be provided including the original average depths, postmining soil redistribution depths and total volume. Topsoil should be segregated from overburden and so indicated on the map. This map should be submitted to the Division. The segregation of the overburden and topsoil may be accomplished using a containment berm of overburden. This will also supply the required temporary protection from erosion.
- $\underline{\text{M-3(2)(c)/MR 2-l1(e)/MR 2-l0.}}$ Toxicity tests should be performed on the reject material (processed ore residue) and isolation should be maintained until such times as it is proved acceptable. Erosion control will also have to be maintained and addressed in the mine plan. Overburden berms are a suggestion.
- M-10(6). Has the Department of State Health approved the processing operation?

- $\underline{M-10(2)(b)}$. What method of trash disposal will be employed?
- $\underline{\text{M-lo}(2)(\text{d-e})}$. Will temporary warning signs around the highwall be posted during the operation? Will temporary fencing be installed during the operation for protection of livestock? After operations have terminated, will fencing be used to prohibit cattle from grazing on revegetated areas? If not, what will be used as a deterrent?
- $\underline{\text{M-}10(9)}$. Will Phase III involve the use of the refinery on the site of Phase II? If not, a commitment to this rule on structure, debris and foundation removal must be made.
- MR-2(a). A cross section through each pit area of pre, post and continuing mining contours should be provided.
- $\underline{\text{M-}10(10)}$. A commitment should be made that will address the reclamation of access ways to the pits and refinery.
 - M-10(12). Provide the recommended SCS seed mixture for revegetation.
- $\underline{\text{M-}10(14)}$. Please provide the general physical and chemical characteristics of the overburden material.
- $\underline{\text{M-3(2)(f)}}$. An updated timetable for operations should be submitted to the Division including estimates of pit groundbreaking reclamation, refinery construction, Phase III initiation, etc.